



# Grain Transportation Report

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**U.S. to Europe Soybean Transportation Cost Down, Brazil's Up.** Total transportation cost of shipping soybeans from Minneapolis, MN to Hamburg, Germany decreased during 2<sup>nd</sup> quarter 2005, compared with the 1<sup>st</sup> quarter (table 1). Conversely, the costs of shipping soybeans from Brazil, to the same destination during the same period, increased depending upon the production region export port (see table below and table 18 and figure 15 inside the report for more detail). Although the truck rates increased slightly in the U.S. during the 2<sup>nd</sup> quarter, ocean freight rates fell significantly during the period.

Table 1 -- Quarterly costs of transporting soybeans from U.S. and Brazil to Hamburg, Germany

	2005 1st qtr.	2005 2nd qtr.	Percent change	2005 1st qtr.	2005 2nd qtr.	Percent change
United States						
Minneapolis, MN						
	--\$/mt--		--%--			
Truck	7.58	7.82	3.17	7.58	7.82	3.17
Barge <sup>1</sup>	18.42	18.93	2.77	18.16	14.67	-19.22
Ocean <sup>2</sup>	37.46	32.81	-12.41	37.46	32.81	-12.41
Total transportation	63.46	59.56	-6.15	63.20	55.30	-12.50
Farm Value <sup>3</sup>	208.09	230.84	10.93	202.22	226.81	12.16
Landed Cost	271.55	290.40	6.94	265.42	282.11	6.29
Transport % of landed cost	23.37	20.51		23.81	19.60	
Brazil						
Northwest RS <sup>4</sup> - Rio Grande <sup>5</sup>						
	--\$/mt--		--%--			
Truck	12.83	12.68	-1.17	69.96	79.07	13.02
Ocean <sup>6</sup>	44.20	44.39	0.43	44.64	44.84	0.45
Total transportation	57.03	57.07	0.07	114.60	123.91	8.12
Farm Value <sup>7</sup>	202.61	210.19	3.74	145.15	161.38	11.18
Landed Cost	259.64	267.26	2.93	259.75	285.29	9.83
Transport % of landed cost	21.97	21.35		44.12	43.43	
South GO <sup>4</sup> - Santos <sup>5</sup>						
	--\$/mt--		--%--			
Truck	25.82	40.11	55.34	19.26	22.82	18.48
Ocean	45.53	45.84	0.68	44.64	44.84	0.45
Total transportation	71.35	85.95	20.46	63.90	67.66	5.88
Farm Value <sup>7</sup>	174.70	179.81	2.93	196.31	207.04	5.47
Landed Cost	246.05	265.76	8.01	260.21	274.70	5.57
Transport % of landed cost	29.00	32.34		24.56	24.63	
North Center PR <sup>4</sup> - Paranagua <sup>5</sup>						
	--\$/mt--		--%--			
Truck	25.82	40.11	55.34	19.26	22.82	18.48
Ocean	45.53	45.84	0.68	44.64	44.84	0.45
Total transportation	71.35	85.95	20.46	63.90	67.66	5.88
Farm Value <sup>7</sup>	174.70	179.81	2.93	196.31	207.04	5.47
Landed Cost	246.05	265.76	8.01	260.21	274.70	5.57
Transport % of landed cost	29.00	32.34		24.56	24.63	

<sup>1</sup>The Mississippi River closes from Minneapolis to just north of St. Louis during mid-December to late March

<sup>2</sup>Source: The Baltic Exchange; <sup>3</sup>Source: USDA/NASS

<sup>4</sup>Producing regions: RS = Rio Grande Do Sul, MT = Mato Grosso, GO = Goiás, PR = Paraná

<sup>5</sup>Export ports

<sup>6</sup>Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

<sup>7</sup>Source: Companhia Nacional de Abastecimento (CONAB) [www.conab.gov.br](http://www.conab.gov.br)

Figure 1 -- Total landed cost of shipping soybeans from Davenport, IA to Hamburg, Germany, 2nd quarter 2005

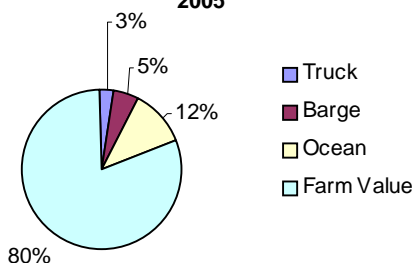
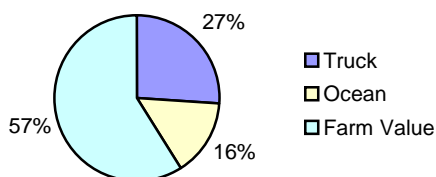


Figure 2 -- Total landed cost of shipping soybeans from North Mato Grosso, Brazil to Hamburg, Germany, 2nd quarter 2005



# Grain Transportation Indicators

**Table 1--Grain transport cost indicators\***

	Truck	Rail**	Barge	Ocean	
Week ending				Gulf	Pacific
08/31/05	174	621	278	167	162
Compared with last week	Unchanged	↑	↑	↓	↓

\*Indicator: Base year 2000 = 100; Weekly updates include truck = diesel (\$/gallon); rail = nearby secondary rail market (\$/car); barge = spot Illinois River basis (index = percent of tariff rate); and ocean = routes to Japan (\$/metric ton)

\*\*The rail indicator is not an index. It is the difference between the nearby secondary rail market bid for this week and the average bid for year 2000 (+) 100.

Source: Transportation & Marketing Programs/AMS/USDA

**Table 2--Market update: U.S. origins to export position price spreads (\$/bushel)**

Commodity	Origin--destination	8/26/2005	8/19/2005
Corn	IL--Gulf	-0.55	-0.51
Corn	NE--Gulf	-0.81	-0.79
Soybean	IA--Gulf	-0.70	-0.67
HRW	KS--Gulf	-0.85	-0.86
HRS	ND--Portland	-1.58	-1.39

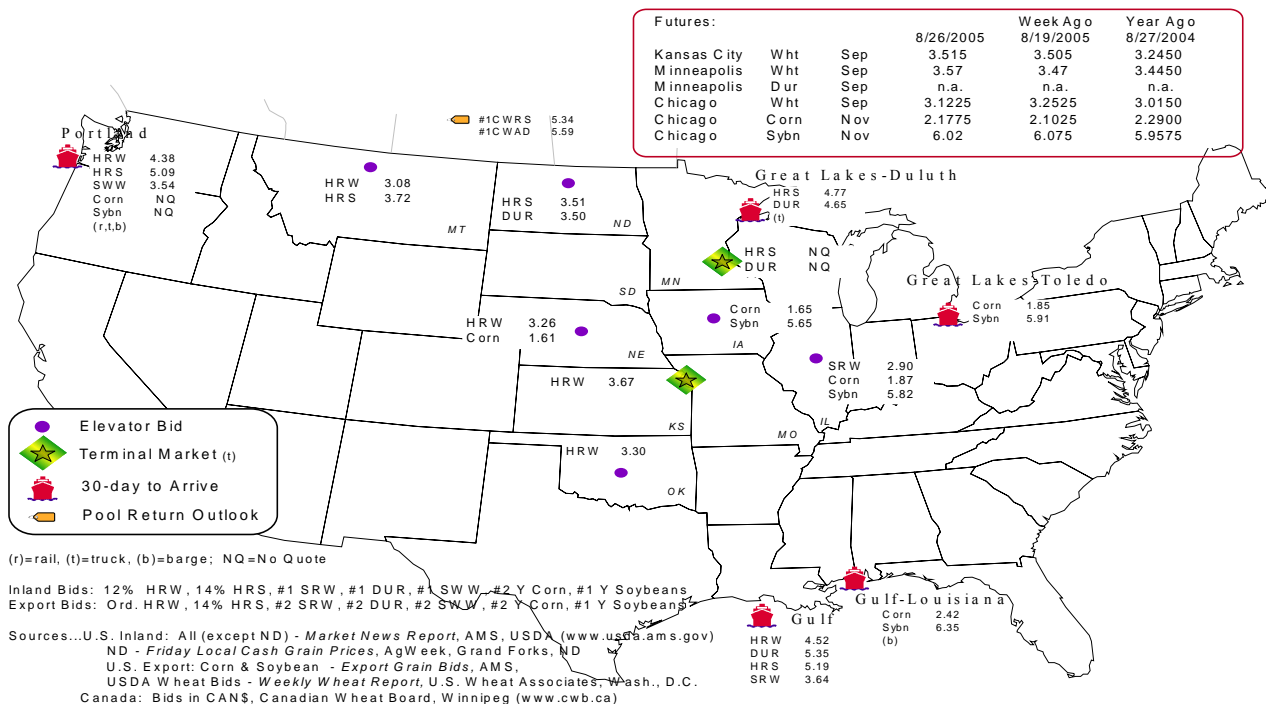
Note: nq = no quote

Source: Transportation & Marketing Programs/AMS/USDA

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

Figure 1

## Grain bid summary



# Rail Transportation

**Table 3--Rail deliveries to port (carloads)\***

Week ending	Mississippi Gulf	Texas Gulf	Cross-Border Mexico	Pacific Northwest	Atlantic & East Gulf	Total
8/24/2005 <sup>p</sup>	137	1,897	1,125	3,923	20	7,102
08/17/2005 <sup>r</sup>	147	2,273	1,612	3,997	40	8,069
2005 YTD	7,590	59,536	57,090	142,812	7,963	274,991
2004 YTD	5,229	68,631	35,184	132,781	4,884	246,709
2005 as % of 2004	145	87	162	108	163	111
Total 2004	10,475	92,073	67,992	209,625	10,986	391,151
Total 2003**	14,843	88,194	48,805	157,125	20,509	329,476

(\*) Incomplete Data; as of 9/22/04, Cross-Border movements included; (\*\*) Excludes 53rd week; YTD = year-to-date; p = preliminary data;

r = revised data

Source: Transportation & Marketing Programs/AMS/USDA

Railroads originate approximately 40 percent of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

Figure 2

## Rail deliveries to port

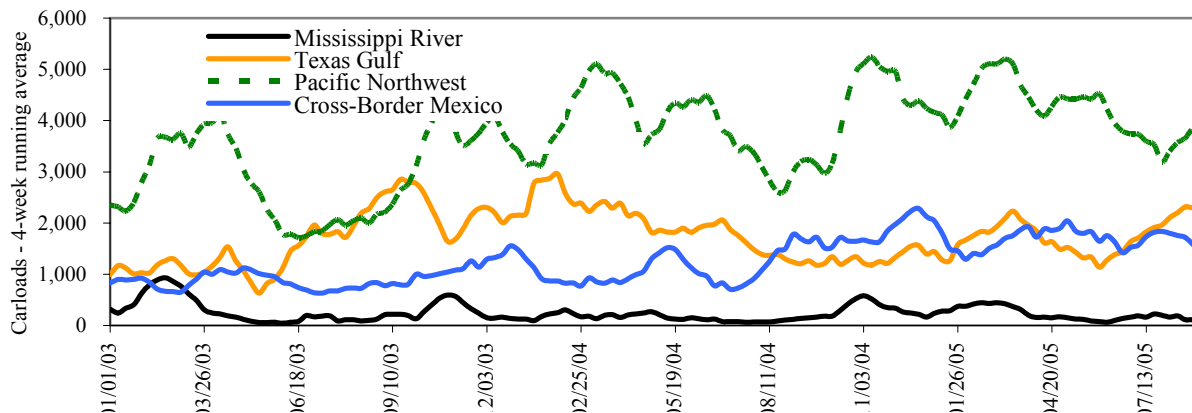
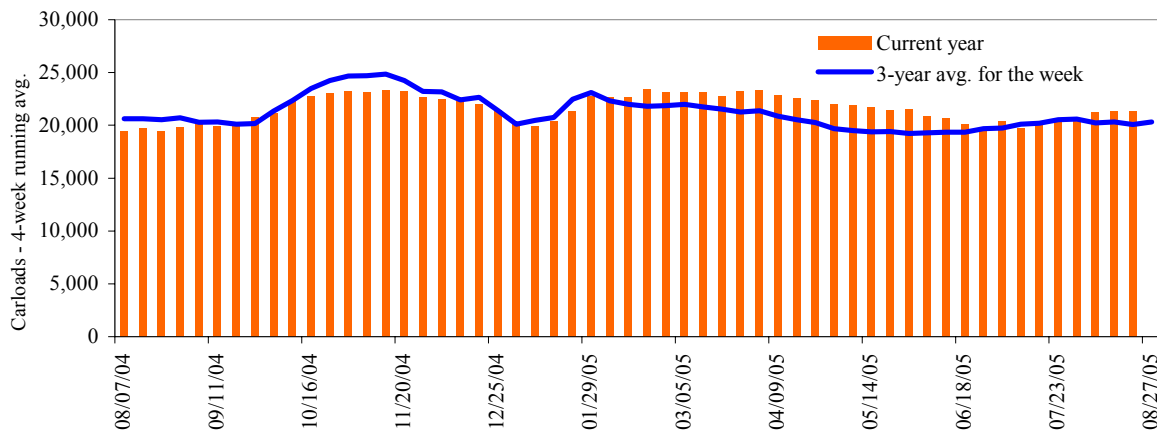


Figure 3

## Total weekly U.S. grain car loadings for Class I railroads



Source: Association of American Railroads

**Table 4--Class I rail carrier grain car bulletin (grain carloads originated)**

Week ending	East		West			U.S. total	Canada	
	CSXT	NS	BNSF	KCS	UP		CN	CP
08/20/05	2,474	2,634	8,407	765	6,447	20,727	4,357	4,253
This week last year	2,299	3,078	8,484	692	5,206	19,759	5,579	4,809
2005 YTD	96,685	107,225	297,882	19,281	197,593	718,666	135,901	132,492
2004 YTD	92,112	106,801	284,766	15,998	214,215	713,892	154,919	129,916
2005 as % of 2004	105	100	105	121	92	101	88	102
Total 2004	142,206	169,650	458,587	27,618	327,510	1,125,571	237,664	210,060

Source: Association of American Railroads (www.aar.org); YTD = year-to-date

**Table 5--Rail car auction offerings\*, week ending 8/27/05 (\$/car)\*\***

Delivery for:	Oct-05	Nov-05	Dec-05
BNSF <sup>1</sup>			
COT/N. grain	no offer	\$375	\$339
COT/S. grain	no offer	no offer	\$354
UP <sup>2</sup>			
GCAS/Region 1	no offer	no offer	no offer
GCAS/Region 2	no offer	no offer	no offer

\*Auction offerings are for single-car and unit train shipments only.

\*\*Average premium/discount to tariff, last auction

<sup>1</sup>BNSF - COT = Certificate of Transportation

N includes: ID, MN, MT, ND, OR, SD, WA, WI, WY, and Manitoba, Canada.

S includes: CO, IA, IL, KS, MO, NE, OK, TX, NM, AZ, CA, UT, and NV.

<sup>2</sup>UP - GCAS = Grain Car Allocation System

Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

Source: Transportation & Marketing Programs/AMS/USDA

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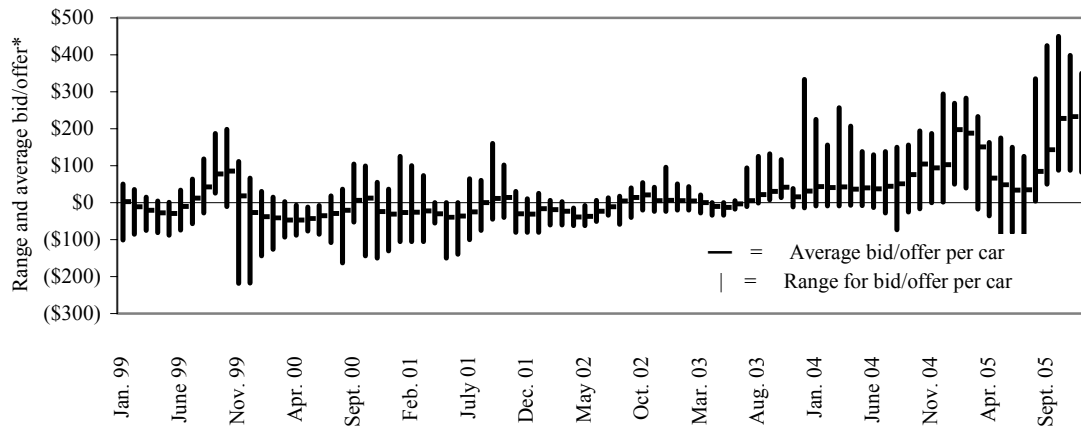
Rail service may be ordered directly from the railroad via **auction** for guaranteed service, or via tariff for nonguaranteed service, or through the secondary railcar market.

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The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4

**Secondary rail car market, delivery month-year**



\*up to 6 months of trading

Source: Transportation & Marketing Programs/AMS/USDA

**Average bid/offer** is the simple average of all the weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

**Range for bid/offer** shows the range of average weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

**Table 6--Weekly secondary rail car market, week ending 8/27/05 (\$/car)\***

	Delivery period			
	Oct-05	Nov-05	Dec-05	Jan-05
BNSF-GF	\$544	\$447	\$444	\$250
Change from last week	\$94	\$49	\$94	\$12
UP-Pool	\$508	\$400	\$363	\$275
Change from last week	\$158	\$100	\$88	n/a

\*Average premium/discount to tariff, \$/car-last week

Note: Bids listed are market INDICATORS only & are NOT guaranteed prices,

Missing value = no bid quoted; GF = guaranteed freight; Pool = guaranteed pool

Sources: Transportation and Marketing Programs/AMS/USDA

Data from Atwood/ConAgra, Harvest States Co-op, James B. Joiner Co., Tradewest Brokerage Co.

**Table 7--Tariff rail rates for unit and shuttle train shipments\*****Effective date:**

8/1/2005

	<b>Origin Region</b>	<b>Destination Region</b>	<b>Rate/car</b>	<b>Rate/metric ton</b>	<b>Rate/bushel**</b>
<b><u>Unit train*</u></b>					
Wheat	Chicago, IL	Albany, NY	\$1,861	\$20.51	\$0.56
	Kansas City, MO	Galveston, TX	\$2,020	\$22.27	\$0.61
	South Central, KS	Galveston, TX	\$2,450	\$27.01	\$0.74
	Minneapolis, MN	Houston, TX	\$2,420	\$26.68	\$0.73
	St. Louis, MO	Houston, TX	\$2,360	\$26.01	\$0.71
	South Central, ND	Houston, TX	\$3,734	\$41.16	\$1.12
	Minneapolis, MN	Portland, OR	\$4,198	\$46.27	\$1.26
	South Central, ND	Portland, OR	\$4,198	\$46.27	\$1.26
	Northwest, KS	Portland, OR	\$4,381	\$48.29	\$1.31
	Chicago, IL	Richmond, VA	\$2,002	\$22.07	\$0.60
Corn	Chicago, IL	Baton Rouge, LA	\$2,510	\$27.67	\$0.70
	Council Bluffs, IA	Baton Rouge, LA	\$2,370	\$26.12	\$0.66
	Kansas City, MO	Dalhart, TX	\$1,965	\$21.66	\$0.55
	Minneapolis, MN	Portland, OR	\$3,600	\$39.68	\$1.01
	Evansville, IN	Raleigh, NC	\$1,791	\$19.74	\$0.50
	Columbus, OH	Raleigh, NC	\$1,700	\$18.74	\$0.48
	Council, Bluffs, IA	Stockton, CA	\$3,606	\$39.75	\$1.01
	Chicago, IL	Baton Rouge, LA	\$2,455	\$27.06	\$0.74
Soybeans	Council Bluffs, IA	Baton Rouge, LA	\$2,315	\$25.52	\$0.69
	Minneapolis, MN	Portland, OR	\$3,610	\$39.79	\$1.08
	Evansville, IN	Raleigh, NC	\$1,791	\$19.74	\$0.54
	Chicago, IL	Raleigh, NC	\$2,391	\$26.36	\$0.72
<b><u>Shuttle Train*</u></b>					
Wheat	St. Louis, MO	Houston, TX	\$1,820	\$20.06	\$0.55
	Minneapolis, MN	Portland, OR	\$3,898	\$42.97	\$1.17
Corn	Fremont, NE	Houston, TX	\$2,665	\$29.38	\$0.75
	Minneapolis, MN	Portland, OR	\$3,450	\$38.03	\$0.97
Soybeans	Council Bluffs, IA	Houston, TX	\$2,785	\$30.70	\$0.84
	Minneapolis, MN	Portland, OR	\$3,410	\$37.59	\$1.02

\*A unit train refers to shipments of at least 52 cars. Shuttle train rates are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

\*\*Approximate load per car = 100 short tons: corn 56 lbs./bu., wheat & soybeans 60 lbs./bu.

Sources: [www.bnsf.com](http://www.bnsf.com), [www.cpr.ca](http://www.cpr.ca), [www.csx.com](http://www.csx.com), [www.uprr.com](http://www.uprr.com)

**Table 8--Tariff rail rates for U.S. bulk grain shipments to Mexico, 2005****Effective date:** 08/01/05

<b>Commodity</b>	<b>Origin State</b>	<b>Border crossing region</b>	<b>Train size</b>	<b>Rate<sup>1</sup></b>	<b>Rate/metric ton</b>	<b>Rate/bushel**</b>
Wheat	KS	Brownsville, TX	Shuttle	\$2,851	\$29.13	\$0.79
	ND	Eagle Pass, TX	Shuttle	\$5,399	\$55.17	\$1.50
	OK	El Paso, TX	Shuttle	\$2,264	\$23.13	\$0.63
	OK	El Paso, TX	Unit	\$2,432	\$24.85	\$0.68
	AR	Laredo, TX	Unit	\$2,383	\$24.35	\$0.66
	IL	Laredo, TX	Unit	\$3,188	\$32.57	\$0.89
	MT	Laredo, TX	Shuttle	\$4,298*	\$43.92	\$1.19
	TX	Laredo, TX	Shuttle	\$2,165	\$22.12	\$0.60
	MO	Laredo, TX	Shuttle	\$2,731	\$27.90	\$0.76
	WI	Laredo, TX	Unit	\$3,405	\$34.79	\$0.95
Corn	NE	Brownsville, TX	Shuttle	\$3,104	\$31.72	\$0.80
	NE	Brownsville, TX	Unit	\$3,645*	\$37.24	\$0.95
	IA	Eagle Pass, TX	Unit	\$3,334	\$34.07	\$0.86
	MO	Eagle Pass, TX	Shuttle	\$3,040*	\$31.06	\$0.79
	NE	Eagle Pass, TX	Shuttle	\$3,440*	\$35.15	\$0.89
	IA	Laredo, TX	Shuttle	\$3,258	\$33.29	\$0.84
Soybean	IA	Brownsville, TX	Shuttle	\$2,880	\$29.43	\$0.80
	MN	Brownsville, TX	Shuttle	\$3,176	\$32.45	\$0.88
	NE	Brownsville, TX	Shuttle	\$2,688	\$27.47	\$0.75
	NE	Eagle Pass, TX	Shuttle	\$2,765	\$28.25	\$0.77
	IA	Laredo, TX	Unit	\$2,918	\$29.82	\$0.81

A unit train refers to shipments of at least 52 cars. Shuttle train are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

<sup>1</sup>Rates are based upon published tariff rates for high-capacity rail cars.

\*High-capacity rate not available, rate estimated using published low-capacity tariff rate x 1.08

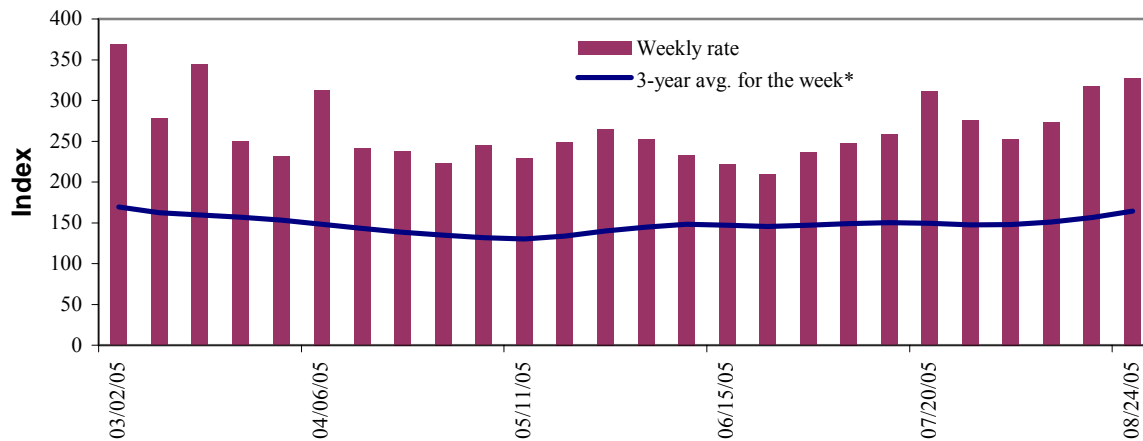
\*\*Approximate load per car = 97.87 metric tons: Corn 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

Sources: www.bnsf.com, www.uprr.com

# Barge Transportation

Figure 5

**Illinois River barge rate index - quotes**



Note: Index = percent of tariff rate; \*4-week moving average

Source: Transportation & Marketing Programs/AMS/USDA

The **Illinois River barge rate index** averaged 183 percent of the **benchmark tariff rates** between 1999 and 2001, based on weekly market quotes. The **index**, along with **rate quotes** and **futures market bids** are indicators of grain transport supply and demand.

**Table 9--Barge rate quotes: southbound barge freight**

Location	8/24/2005	8/17/2005	Sept. '05	Nov. '05
Twin Cities	374	385	406	371
Mid-Mississippi	319	319	372	332
Illinois River	328	317	367	316
St. Louis	353	328	373	284
Lower Ohio	338	317	374	301
Cairo-Memphis	371	329	383	276

Index = percent of tariff, based on 1976 tariff benchmark rate

Source: Transportation & Marketing Programs/AMS/USDA

## Calculating barge rate per ton:

(Index \* 1976 tariff benchmark rate per ton)/100

Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map (see figure 6).

**Note:** The Illinois barge rate is for Beardstown, IL, La Grange Lock & Dam (L&D 8).

Figure 6

**Benchmark tariff rates**

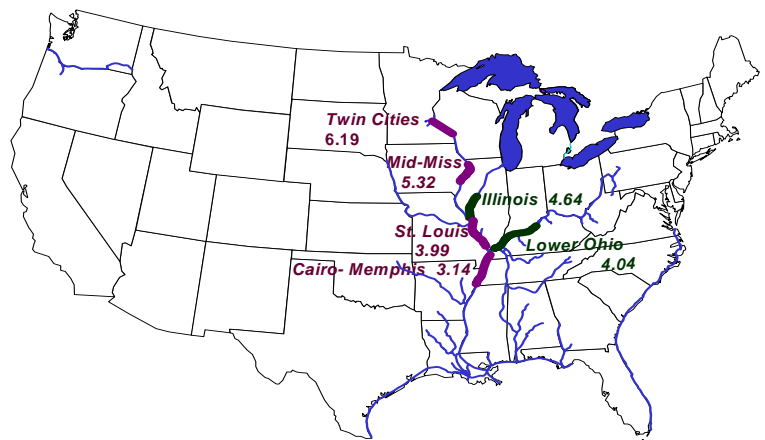
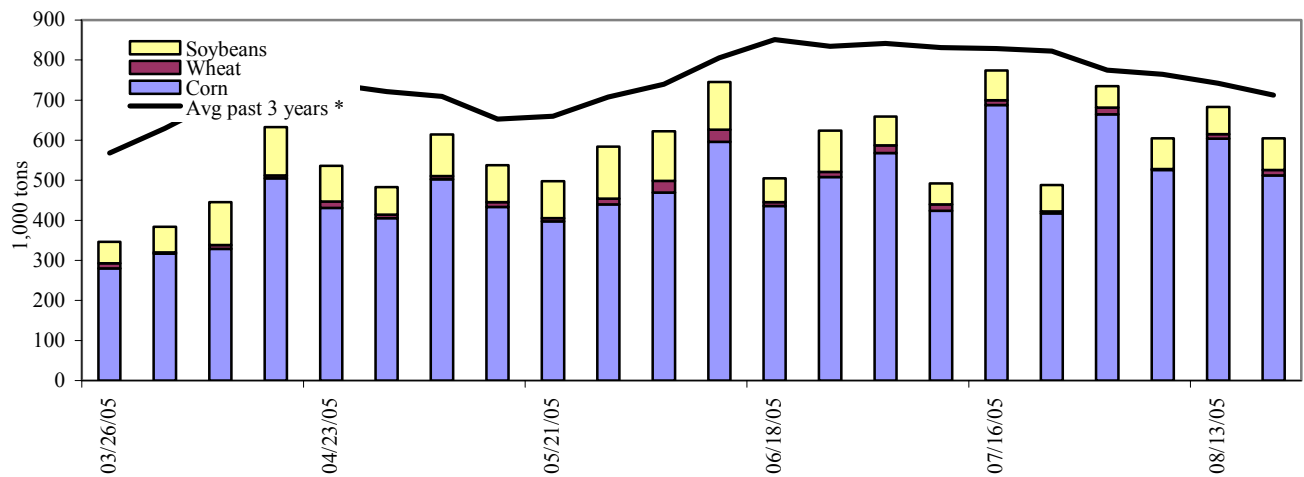


Figure 7

**Barge movements on the Mississippi River (Locks 27 - Granite City, IL)**

\* 4-week moving average

Source: Transportation &amp; Marketing Programs/AMS/USDA

**Table 10--Barge grain movements (1,000 tons)**

Week ending 8/20/2005	Corn	Wheat	Soybean	Other	Total
<b>Mississippi River</b>					
Rock Island, IL (L15)	260	2	25	2	288
Winfield, MO (L25)	402	12	28	2	444
Alton, IL (L26)	498	14	75	0	587
Granite City, IL (L27)	512	14	79	0	604
<b>Illinois River (L8)</b>	117	2	25	0	144
<b>Ohio River (L52)</b>	42	18	19	2	81
<b>Arkansas River (L1)</b>	0	15	6	0	21
2005 YTD	15,530	1,145	4,487	457	21,618
2004 YTD	16,762	1,904	2,735	449	21,849
2005 as % of 2004 YTD	93	60	164	102	99
Total 2004	26,235	2,701	6,784	843	36,563

YTD (year-to-date) and calendar year total includes Miss/27, Ohio/52, and Ark/1; "Other" refers to oats, barley, sorghum, and rye.

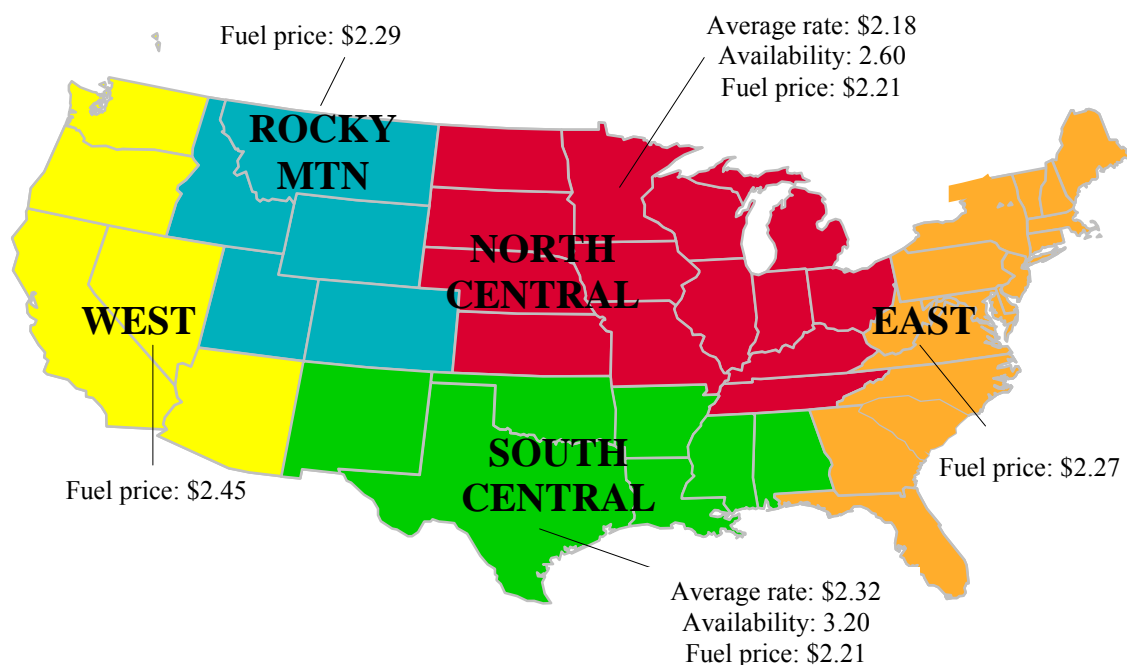
Source: U.S. Army Corp of Engineers ([www.mvr.usace.army.mil/mvrmi/omni/webrrpts/default.asp](http://www.mvr.usace.army.mil/mvrmi/omni/webrrpts/default.asp))

Note: Total may not add exactly, due to rounding

# Truck Transportation

Figure 8

U.S. grain truck market advisory, 2nd quarter 2005\*



\*Average rate per loaded mile, based on truck rates for trips of 25, 100, and 200 miles

Note: Fuel prices are a quarterly average (unit per gallon)

Fuel price data source: Energy Information Administration, U.S. Department of Energy, [www.eia.doe.gov](http://www.eia.doe.gov)

Table 11--U.S. grain truck market overview, 2nd quarter 2005

Region/commodity*	25 miles	100 miles	200 miles	Truck availability	Truck activity	Future truck activity
	Rate per mile			Rating compared to same quarter last year 1=Very easy to 5=Very difficult		
					1=Much lower to 5=Much higher	
<b>National average<sup>1</sup></b>	<b>3.03</b>	<b>2.10</b>	<b>1.75</b>	<b>2.8</b>	<b>2.9</b>	<b>3.3</b>
<b>North Central region<sup>2</sup></b>	3.00	1.95	1.59	2.6	3.1	3.3
Corn	3.08	2.47	1.87	2.0	3.3	3.5
Wheat	2.49	1.88	1.50	2.9	3.0	3.3
Soybean	3.08	2.47	1.87	2.0	3.3	3.5
<b>South Central region<sup>2</sup></b>	2.89	2.18	1.88	3.2	2.2	2.8
Corn	2.60	1.96	1.78	3.3	2.3	2.8
Wheat	2.56	1.99	1.68	3.3	2.7	3.2
Soybean	3.87	2.49	2.18	3.0	2.0	2.8

Rates are based on trucks with 80,000 lb gross vehicle weight limit

\*Commodity averages based on truck rates for top producing states based on National Agricultural Statistics Service/USDA

<sup>1</sup>National average includes: AR, CO, IA, IL, IN, KS, LA, MN, MS, ND, NE, OH, OK, OR, SD, TX, and WA.

<sup>2</sup>Commodity rates per mile include the average of the top 3 producing states within the region.

Source: Transportation and Marketing Programs/AMS/USDA

The **weekly diesel price** provides a proxy for trends in U.S. truck rates. Diesel fuel is a significant expense for truck grain movements, accounting for 37 percent of the estimated variable cost.

**Table 12--Retail on-highway diesel prices\*, week ending 08/29/05 (US\$/gallon)**

Region	Location	Price	Change from	
			Week ago	Year ago
I	East Coast	2.564	0.000	0.706
	New England	2.649	0.007	0.693
	Central Atlantic	2.654	0.000	0.717
	Lower Atlantic	2.518	-0.001	0.703
II	Midwest	2.532	-0.008	0.688
III	Gulf Coast	2.508	-0.004	0.684
IV	Rocky Mountain	2.726	0.047	0.811
V	West Coast	2.920	0.023	0.869
	California	3.045	0.008	0.897
Total	U.S.	2.590	0.002	0.719

\*Diesel fuel prices include all taxes.

Source: Energy Information Administration/U.S. Department of Energy ([www.eia.doe.gov](http://www.eia.doe.gov))

# Grain Exports

**Table 13--U.S. export balances (1,000 metric tons)**

Week ending 1/	Wheat						Corn	Soybeans	Total
	HRW	SRW	HRS	SWW	DUR	All wheat			
8/18/2005	2,376	361	1,177	819	83	4,815	3,799	853	9,467
This week year ago	1,643	1,275	1,524	1,259	88	5,790	3,019	387	9,196
Cumulative exports-crop year 2/									
2004/05 YTD	2,247	555	1,660	555	207	5,224	43,967	29,686	78,877
2003/04 YTD	2,409	952	1,615	855	149	5,979	46,770	24,031	76,780
2004/05 as % of 2003/04	93	58	103	65	139	87	94	124	103
2003/04 Total	12,697	3,785	6,928	4,889	1,053	29,353	47,704	24,102	101,159
2002/03 Total	6,896	2,899	6,645	3,517	720	20,677	39,646	28,908	89,231

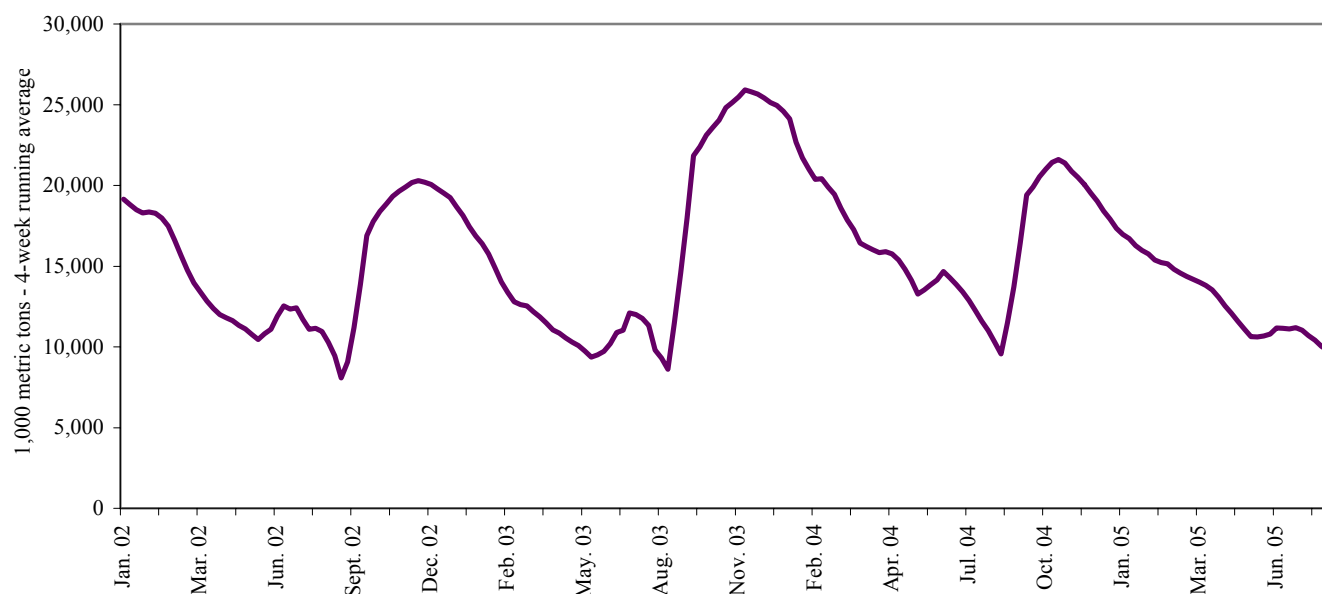
Note: YTD = year-to-date. Crop year: wheat = 6/01-5/31, corn & soybeans = 9/01-8/31, 1/ = Current unshipped export sales to date

2/ = Shipped export sales to date

Source: Foreign Agricultural Service/USDA ([www.fas.usda.gov](http://www.fas.usda.gov))

Figure 9

**U.S. grain, unshipped export balance, including wheat, corn, and soybean sales**



Source: Foreign Agricultural Service/USDA ([www.fas.usda.gov](http://www.fas.usda.gov))

**Table 14--Select U.S. port regions - grain inspections for export (1,000 metric tons)**

Week ending	Pacific Region			Mississippi Gulf			Texas Gulf			Port Region total		
	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Pacific	Mississippi	Texas
08/25/05	274	295	7	45	664	117	120	26	0	577	827	147
2005 YTD	6,262	6,724	3,442	3,400	18,174	8,927	4,416	346	6	16,429	30,501	4,768
2004 YTD	7,310	7,305	1,929	4,729	20,602	6,431	5,858	51	14	16,544	31,763	5,923
2005 as % of 2004	86	92	178	72	88	139	75	674	43	99	96	80
2004 Total *	12,121	9,741	4,753	7,154	32,851	15,540	7,936	131	23	26,615	55,546	8,089

Source: Federal Grain Inspection Service/USDA ([www.usda.gov/gipsa](http://www.usda.gov/gipsa)); YTD: year-to-date; \* includes 53rd week

The United States exports approximately one-quarter of the grain it produces. On average, it includes nearly 45 percent of U.S.-grown wheat, 35 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 55 percent of these U.S. export grain shipments departed through the Mississippi Gulf region in 2004.

Figure 10

**U.S. grain inspected for export (wheat, corn, and soybeans)**

Source: Federal Grain Inspection Service/USDA ([www.usda.gov/gipsa](http://www.usda.gov/gipsa))

# Ocean Transportation

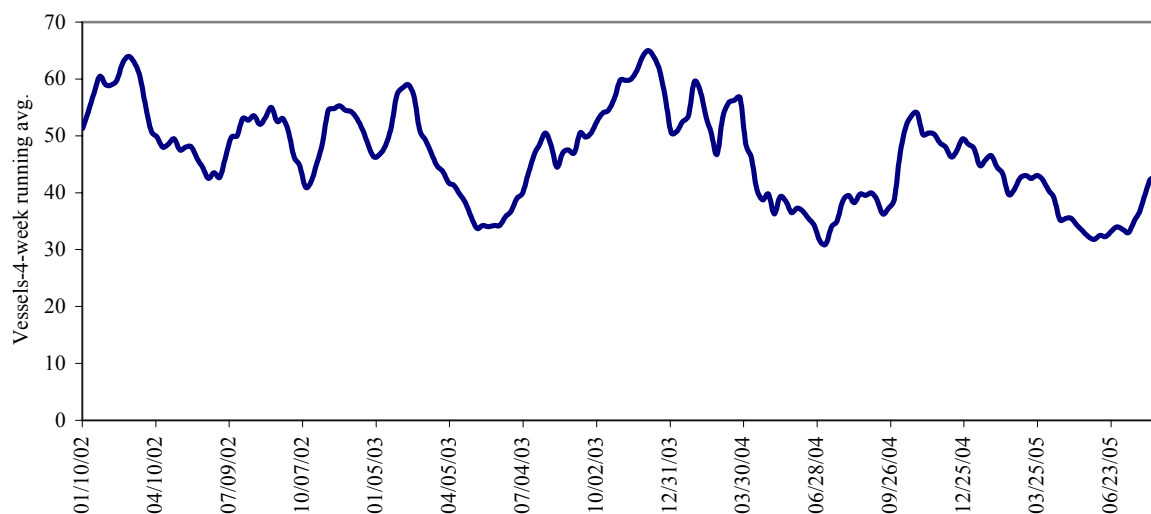
**Table 15--Weekly port region grain ocean vessel activity (number of vessels)**

Date	Gulf			Pacific Northwest	Vancouver B.C.
	In port	Loaded 7-days	Due next 10-days	In port	In port
8/25/2005	23	36	49	7	6
8/18/2005	22	39	46	9	5
2004 range	(10..43)	(25..73)	(38..96)	(4..16)	(0..18)
2004 avg.	24	45	61	9	6

Source: Transportation & Marketing Programs/AMS/USDA

Figure 11

**Gulf Port grain vessel loading (past 7 days)**



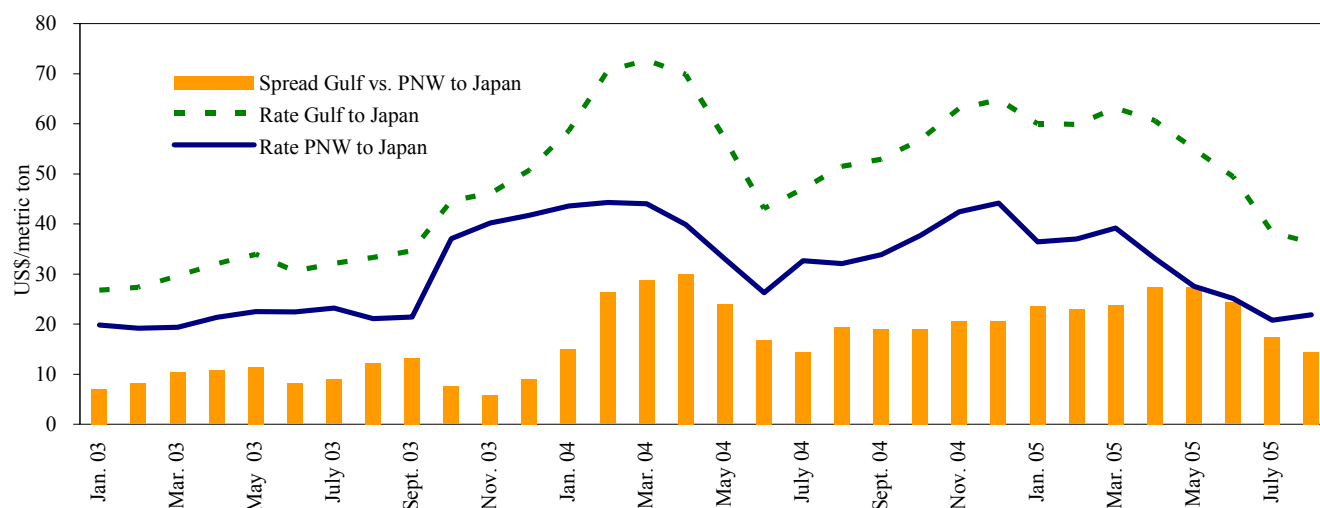
Source: Transportation & Marketing Programs/AMS/USDA

**Table 16--Quarterly ocean freight rates (average rates & percentage changes) (US\$/metric ton)**

Countries/ regions	2005 2nd qtr	2004 2nd qtr	Percent change	Countries/ regions	2005 2nd qtr	2004 2nd qtr	Percent change
<b>Gulf to</b>				<b>Pacific NW to</b>			
Japan	---	37.00	---	Japan	---	---	---
Taiwan	---	---	---	<b>Argentina/Brazil to</b>			
N. Africa	44.83	35.33	27	N. Africa	---	63.58	---
Med. Sea	---	---	---	Turkey	49.00	42.00	17

Source: Maritime Research, Inc. (www.maritime-research.com)

Figure 12

**Grain vessel rates, U.S. to Japan**

Source: Baltic Exchange (www.balticexchange.com)

**Table 17--Ocean freight rates for selected shipments, week ending 08/27/05**

Export region	Import region	Grain	Month	Volume loads (metric tons)	Freight rate (\$/metric ton)
U.S. Gulf	Djibouti*	Wheat	Aug 15/25	29,810	94.75
U.S. Gulf	Japan	Hvy Grain	Aug 17/27	44,000	33.75
U.S. Gulf	Japan	Hvy Grain	Aug 1/10	54,000	37.50
U.S. Gulf	Algeria	Hvy Grain	Aug 12/17	25,000	23.00 op 25.50
United Kingdom	Spain Mediterranean	Wheat	Aug 25/30	24,000	20.50
Poland	Spain Mediterranean	Hvy Grain	Aug 25/30	23,000	21.50

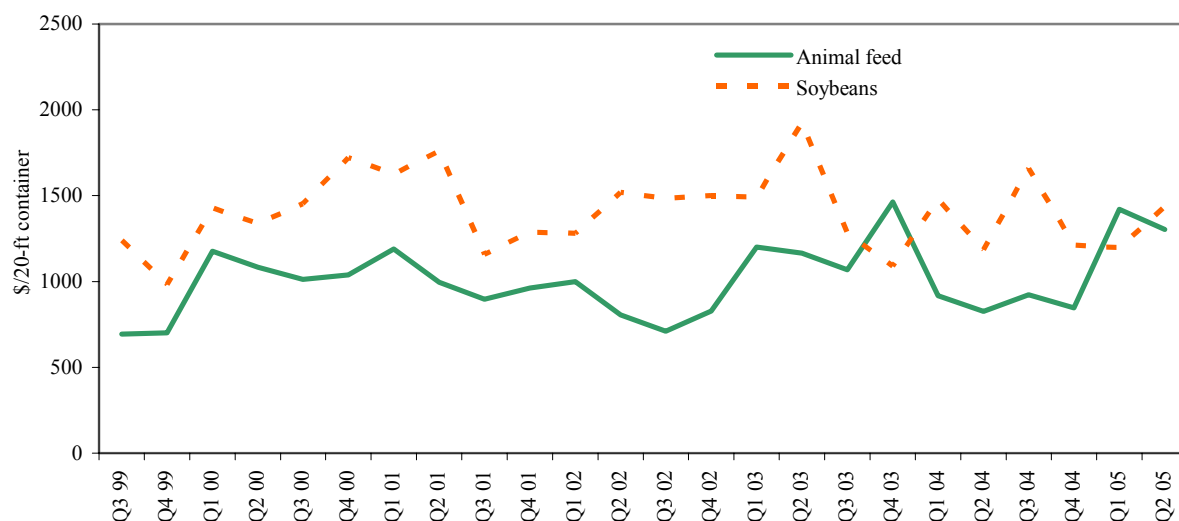
Rates shown are for metric ton (2,204.62 lbs. = 1 metric ton), F.O.B., except where otherwise indicates; op = option

\*75 percent of food aid from the United States is required to be shipped on U.S. flag vessels. The vessels are limited in availability resulting in higher rates. In addition, destinations receiving food aid generally lack adequate port unloading facilities, requiring the vessel to remain in port for a longer duration than normal.

Source: Maritime Research Inc. (www.maritime-research.com)

Figure 13

**Weighted average rates<sup>1</sup> for containerized shipments of animal feed and soybeans to selected Asian countries**



<sup>1</sup> Animal Feed: Busan-Korea (13%), Kaohsiung-Taiwan (41%), Tokyo-Japan (30%), Hong Kong (11%), Bangkok-Thailand (5%) and soybeans: Busan-Korea (1%), Keelung-Taiwan (85%), Tokyo-Japan (11%), Bangkok-Thailand (3%), Hong Kong (1%)

Quarter 2, 2005.

Source: Ocean Rate Bulletin, Transportation & Marketing Programs/AMS/USDA

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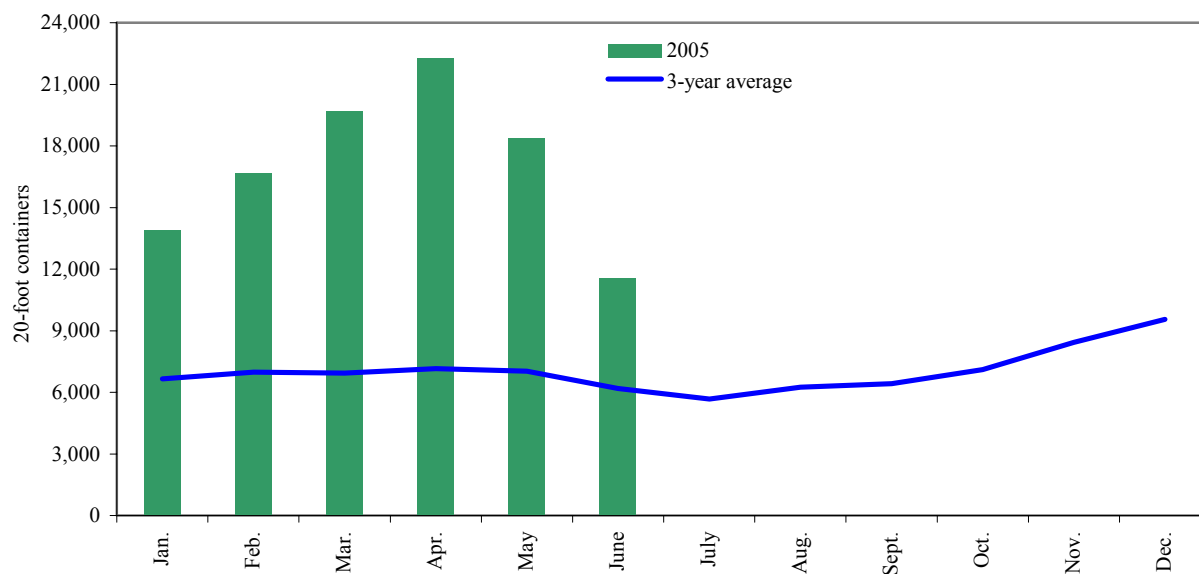
Container ocean freight rates – average rate per twenty-foot equivalent unit (TEU) weighted by shipping line market share and trade route.

During 2004, containers were used to transport 2 percent of total U.S. grain exported, and 3 percent of total U.S. grain exported to Asia.

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Figure 14

**Monthly shipments of containerized grain to Asia for 2005 compared with a 3-year average**

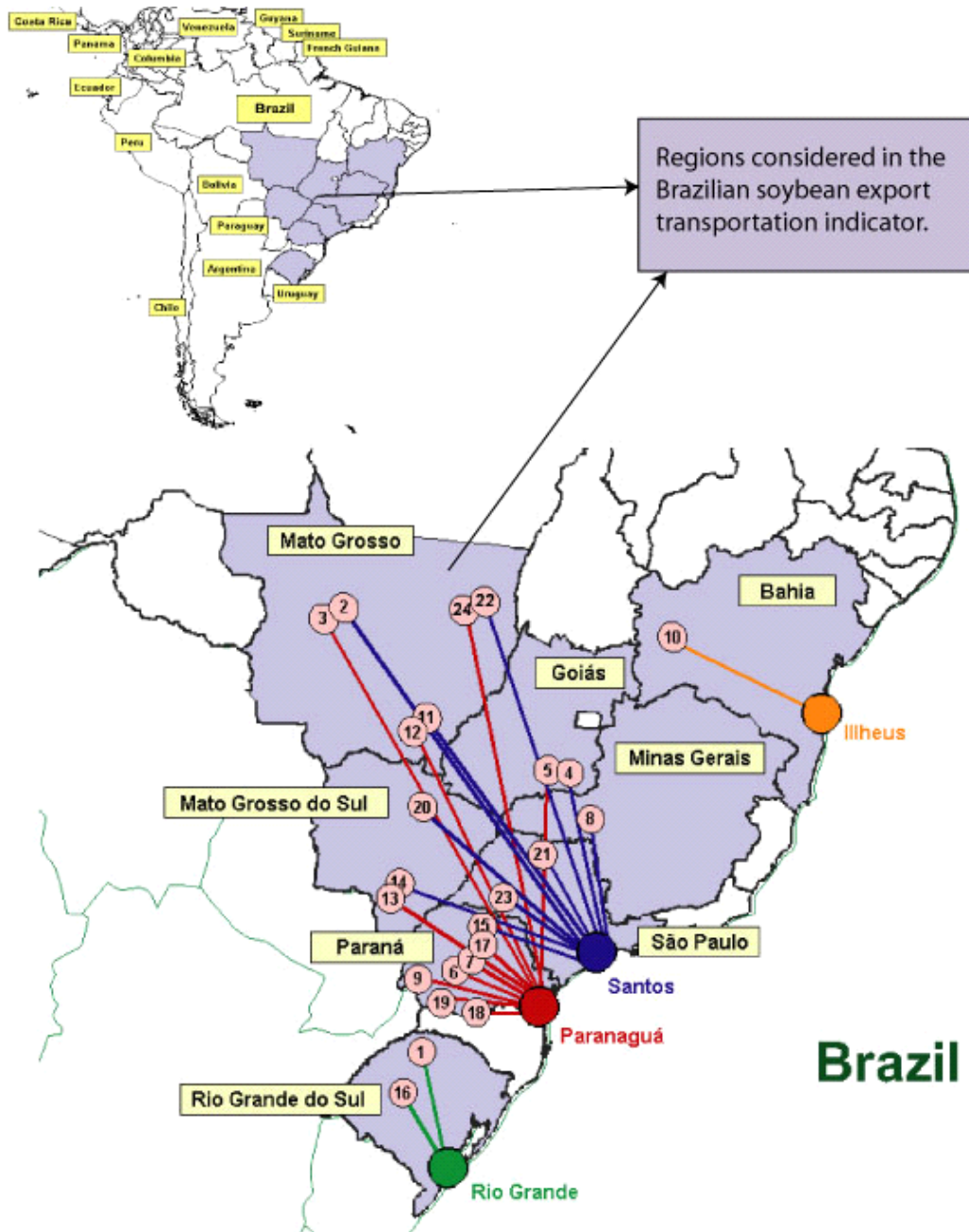


Source: Port Import Export Reporting Service (PIERS), *Journal of Commerce*

Note: PIERS data is available with a lag of approximately 40 days

# Brazil Transportation

Figure 15  
Routes and Regions considered in the Brazilian soybean export transportation indicator<sup>1</sup>



<sup>1</sup> Regions comprised 84 percent of Brazilian soybean production, 2003  
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

**Table 18--Truck rates for selected Brazilian soybean export transportation routes, 2nd quarter 2005**

Route #	Origin <sup>1</sup> (reference city)	Destination	Distance (miles) <sup>2</sup>	Weight(%) <sup>3</sup>	Freight price (per 100 miles) <sup>4</sup>
1	Northwest RS <sup>5</sup> (Cruz Alta)	Rio Grande	288	16.6	4.40
2	North MT(Sorriso)	Santos	1190	10.1	6.80
3	North MT(Sorriso)	Paranaguá	1262	9.5	6.27
4	South GO(Rio Verde)	Santos	587	7.0	6.83
5	South GO(Rio Verde)	Paranaguá	726	5.6	5.29
6	North Center PR(Londrina)	Paranaguá	268	4.4	8.51
7	Western Center PR(Mamborê)	Paranaguá	311	3.9	5.37
8	Triangle MG(Uberaba)	Santos	339	3.8	10.75
9	West PR(Assis Chateaubriand)	Paranaguá	377	3.7	5.16
10	West Extreme BA(São Desidério)	Ilhéus	544	3.6	7.14
11	Southeast MT(Primavera do Leste)	Santos	901	3.6	6.26
12	Southeast MT(Primavera do Leste)	Paranaguá	975	3.3	5.63
13	Southwest MS(Maracaju)	Paranaguá	612	3.1	6.07
14	Southwest MS(Maracaju)	Santos	652	2.9	6.31
15	West PR(Assis Chateaubriand)	Santos	550	2.5	5.68
16	Western Center RS(Tupanciretã)	Rio Grande	273	2.4	5.49
17	Southwest PR(Chopinzinho)	Paranaguá	291	2.3	5.73
18	Eastern Center PR(Castro)	Paranaguá	130	2.3	10.77
19	South Center PR(Guarapuava)	Paranaguá	204	2.1	7.95
20	North Center MS(São Gabriel do Oeste)	Santos	720	2.0	5.60
21	Ribeirão Preto SP(Guairá)	Santos	314	1.5	7.59
22	Northeast MT(Canarana)	Santos	950	1.4	7.26
23	Assis SP(Palmital)	Santos	285	1.2	7.74
24	Northeast MT(Canarana)	Paranaguá	1075	1.2	6.34
<b>Average</b>			<b>626</b>	<b>100</b>	<b>6.33</b>

<sup>1</sup> Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price

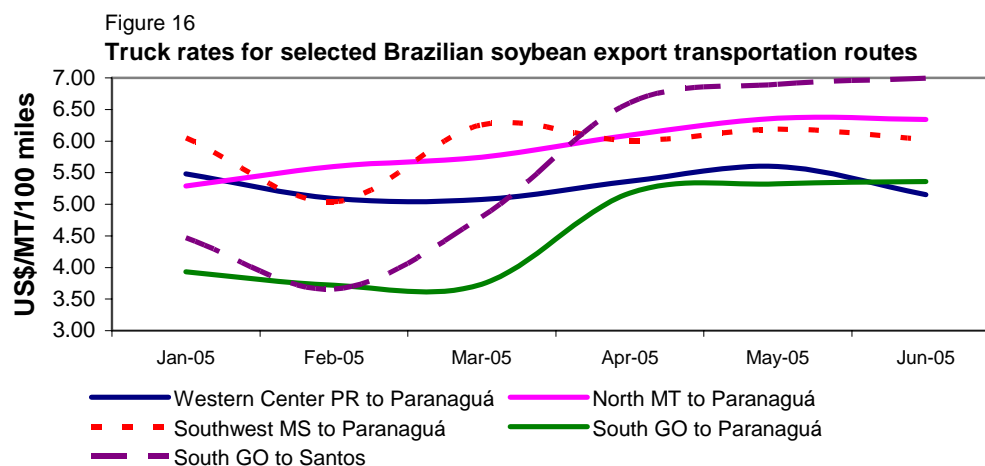
<sup>2</sup> Distance from the main city of the considered region to the mentioned ports

<sup>3</sup> The weight is directly proportional to the amount of production in each region

<sup>4</sup> US\$ per metric ton (average monthly exchange rate from "Banco Central do Brasil" was used to convert Brazilian reais to the U.S. dollar)

<sup>5</sup> RS = Rio Grande Do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso Do Sul, SP = São Paulo

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS



Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

**Table 19--Monthly Brazilian soybean export truck transportation cost index**

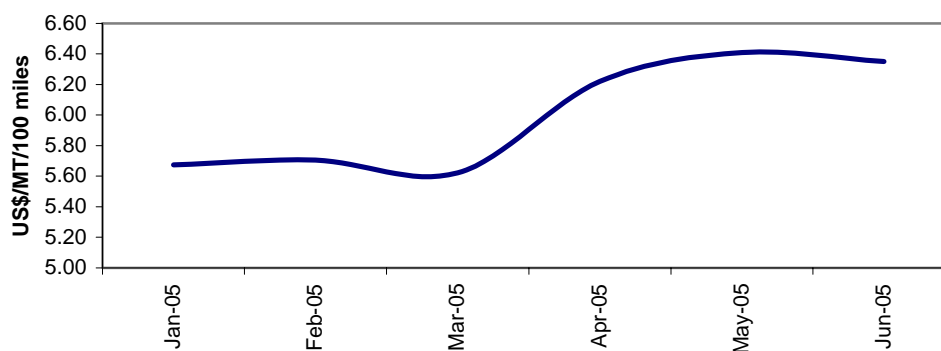
Month	Freight price* (per 100 miles)	Index variation (%) (Base: prior month)	Index value (Base: Jan. 05 = 100)
Jan. 05	5.67		100.00
Feb. 05	5.71	0.5	100.54
Mar. 05	5.62	-1.5	99.08
Apr. 05	6.22	10.6	109.61
May 05	6.41	3.1	112.96
Jun. 05	6.35	-0.9	111.90

\*weighted average and quoted in US\$ per metric ton

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Figure 17

**Brazilian soybean export truck transportation weighted average prices, 2005**



Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

**Table 20--Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Hamburg, Germany (US\$/metric ton)\***

Ports	2005 1st qtr	2005 2nd qtr
Santos	45.53	45.84
Paranagua	44.64	44.84**
Rio Grande	44.20	44.39

\*correspond to the average actual values negotiated between shippers and carriers and weighted according to the magnitude of the shipped volumes

Source: Sistema de Informações de Fretes, SIFRECA, ESALQ/USP (University of São Paulo, Brazil)

\*\*Revised figure

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## Related Websites

<i>Agricultural Container Indicators</i>	<a href="http://www.ams.usda.gov/tmd2/agci/">http://www.ams.usda.gov/tmd2/agci/</a>
<i>Ocean Rate Bulletin</i>	<a href="http://www.ams.usda.gov/tmd/Ocean/index.asp">http://www.ams.usda.gov/tmd/Ocean/index.asp</a>

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